

Norbert Smetana April 29, 2005

Page 1

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF MASSACHUSETTS

3 BRAUN GmbH,

4 Plaintiff,

5 -vs-

6 RAYOVAC CORPORATION,

7 Defendant.

)
)
)
) No. 03-CV-12428 (WGY)
)
)
)
)

8
9 Videotaped deposition through interpreter of
10 NORBERT SMETANA taken before CAROL CONNOLLY, CSR, CRR,
11 and Notary Public, pursuant to the Federal Rules of
12 Civil Procedure for the United States District Courts
13 pertaining to the taking of depositions, at Braun GmbH,
14 Frankfurter Strasse 145, D-61476 Kronberg im Taunus,
15 Germany, at 10:14 a.m. on the 29th day of April, A.D.,
16 2005.

17
18
19
20
21
22
23 EXHIBIT H
24

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1 There were present at the taking of this
2 deposition the following counsel:

3 ROPES & GRAY, LLP by
4 MS. LESLEY F. WOLF
5 One International Place
6 Boston, Massachusetts 02110-2624
7 (617) 951-7000
8 on behalf of the Plaintiff;

9 KIRKLAND & ELLIS, LLP
10 MR. JAMES SHIMOTA
11 200 East Randolph Drive
12 Chicago, Illinois 60601
13 (312) 861-2000

14 on behalf of the Defendant;

15 ALSO PRESENT: Mr. Uwe Sievers
16 Braun GmbH;

17 Dr. Wolfgang Stutius
18 Ropes & Gray;
19 Ms. Jeanette Fröhlich
20 Interpreter;

21 Mr. Kevin Duncan
22 Legal Videographer.
23
24

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1 THE VIDEOGRAPHER: Good morning. We are going on
2 the video record at 10:14 a.m. Today's date is
3 April 29, 2005. My name is Kevin Duncan, and I am a
4 certified legal videographer in association with
5 LegalLink Chicago. The court reporter today is Ms. Carol
6 Connolly.

7 Here begins the videotaped deposition of
8 Mr. Norbert Smetana taken in the matter of Braun GmbH
9 versus Rayovac in the United States District Court for
10 the District of Massachusetts. This deposition is being
11 held at the Braun company in Kronberg, Germany.

12 Will counsel please identify themselves for the
13 record and state whom they represent starting with the
14 noticing party.

15 MR. SHIMOTA: Jim Shimota from Kirkland and Ellis
16 appearing on behalf of defendant Rayovac Corporation.

17 MS. WOLF: Lesley Wolf of Ropes and Gray appearing
18 on behalf of the Braun company.

19 THE VIDEOGRAPHER: Will the court reporter swear in
20 the interpreter and also the witness.
21
22
23
24

Page 3

1 VIDEOTAPED DEPOSITION OF
2 NORBERT SMETANA

3 April 29, 2005

4 EXAMINATION BY: PAGE
5 Mr. James Shimota 5

6 *****

7 EXHIBITS

8 PAGE

9 Deposition Exhibit No. 37 33

10 Deposition Exhibit No. 38 33

11 Deposition Exhibit No. 39 31

12 Deposition Exhibit No. 40 31

13 Smetana Exhibit No. 1 77

14 Smetana Exhibit No. 2 77

15 Smetana Exhibit No. 3 77

16 Smetana Exhibit No. 4 77

17 Smetana Exhibit No. 5 77
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1 JEANETTE FRÖLICH,

2 called as an Interpreter herein, was sworn to interpret
3 questions from English to German and answers from German
4 to English:

5 NORBERT SMETANA,

6 called as a witness herein, having been first duly
7 sworn, was examined upon oral interrogatories and
8 testified as follows:

9 EXAMINATION

10 By Mr. Shimota:

11 THE VIDEOGRAPHER: You may begin please.

12 MR. SHIMOTA: Q Good morning, Mr. Smetana.

13 A Good morning.

14 Q Would you please state your name for the
15 record?

16 A My name is Norbert Smetana.

17 Q And would you also give your address?

18 A I'm living here in Kronberg. The street is
19 Beckinrig 7. You need the -- 61476, Kronberg.

20 Q That's fine. Before we begin, I'd like to go
21 through a few bits of deposition basics. You understand
22 that you are here today to answer questions that I ask
23 you, correct? And in -- in addition, if you would, when
24 I ask you a question, you need to provide an audible

2 (Pages 2 to 5)

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1 answer. Can you do that?

2 A Yes.

3 Q And if during the course of the day I ask you a
4 question which you do not understand, would you please
5 tell me that? Again if you --

6 A Sure. I tell you.

7 Q And, additionally, if there's ever a question
8 that I ask you which you would like to have translated
9 into English, would you please ask for that as well?

10 A Yes, I will do so.

11 Q And if during the course of the day you've
12 given an answer, which you later determine is incomplete
13 or inaccurate, would you also tell me that?

14 A Yes, of course.

15 Q And is there any reason that you can think of
16 sitting here today that you are unable to answer my
17 questions truthfully and accurately?

18 A No, I feel fine today.

19 Q Thank you. Mr. Smetana, where are you
20 employed?

21 A I'm employed in the R & D development and the
22 subdivision is now called OEM products for hair care.

23 Q And are you employed at Braun GmbH?

24 A Yes.

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1 to focus more or less to your interests, and this was
2 the way I came to turbo machines and fluid dynamics and
3 stuff like this.

4 Q What -- I don't know -- if you told me this, I
5 apologize. What university did you study mechanical
6 engineering at?

7 A It was technical high school -- I don't know
8 whether university is now technical university now in
9 Darm Stadt.

10 Q Could you please tell Darm Stadt?

11 A D-A-R-M then S-T-A-D-T.

12 Q And what course work did you take in order to
13 gain knowledge as to fluid dynamics?

14 A We had courses you can choose and others which
15 are --

16 THE INTERPRETER: Compulsory?

17 THE WITNESS: Compulsory, yes, and there was a
18 mixture. Compulsory was the fluid dynamic basic course
19 and then the lessons I choose for myself was more like
20 turbo machinery, special points of fluid dynamics
21 like --

22 THE INTERPRETER: Dimension analysis and disturbance
23 calculation.

24 THE WITNESS: That's really very special.

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1 Q And how long have you been employed by Braun?

2 A I've been working for this company since 19 --
3 December, 1986. That means nearly 20 years. Not
4 really. 19, 18.

5 Q And from December of 1986 to the present have
6 you been continuously employed in the R & D group?

7 A Yes, within the R & D organization.

8 Q If you could take me briefly through where you
9 have worked starting from beginning of your employment
10 until today?

11 A I think that there were three main positions
12 starting with, let's say, more or less an expert in
13 fluid dynamics, knowing more or less the complex rules
14 for small fans and blowers for several appliances. The
15 next step was to go forward to the -- to our own
16 development of hair dryer, hair care products. From the
17 research department this step to development department,
18 and yes, maybe main step that the task of our group is
19 now to support the so-called OEM activities in
20 combination with other companies who support us.

21 Q How did you become an expert in fluid dynamics?

22 A From my study. I studied mechanical
23 engineering. It's minor machine general, mechanical
24 engineering in Darm Stadt and here you have the choice

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1 MR. SHIMOTA: Q Did you take courses in thermal
2 dynamics?

3 A Yes, thermal dynamics. That was also
4 compulsory, yes.

5 Q Do you -- are you familiar with the term
6 chemical engineering or -- with the term?

7 A Chemical --

8 Q Chemical engineering or maybe the term here is
9 process engineer.

10 A I'm not familiar with chemical things besides
11 what I learned in basic school.

12 THE INTERPRETER: In 13th grade.

13 DR. STUTIUS: It's all high school.

14 THE WITNESS: It's my also combination between
15 chemical processes and engineering things. I had no
16 special lessons on this, but it was not -- from time to
17 time you get in connection with stuff, especially
18 advanced technique like --

19 THE INTERPRETER: Heat exchange.

20 THE WITNESS: Heat exchanges and things like this.

21 MR. SHIMOTA: Q It's not particularly important. I
22 studied chemical engineering in the United States.

23 Sounds like you took the same courses I took, but that's
24 just --

3 (Pages 6 to 9)

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1 A Maybe we're different.
 2 Q They're a lot of the same courses.
 3 Did you pursue any further studies after
 4 receiving your degree in Darm Stadt?
 5 A No, no further official studies.
 6 Q And what year did you receive your degree at
 7 Darm Stadt?
 8 A When?
 9 Q Which year?
 10 A In which year? That was in 1986.
 11 Q So am I correct that you began working at Braun
 12 after receiving your degree?
 13 A That's right, yes.
 14 Q Were you employed by any other companies prior
 15 to coming to Braun?
 16 A No.
 17 Q During the course of your work in the R & D
 18 group, did you regularly maintain a laboratory notebook?
 19 A We -- not a notebook in the sense of really a
 20 book, but, of course, we had our notices not only of
 21 piece of paper but in documents, in ream books and so
 22 on, but I'm not sure whether you mean by lab book really
 23 -- binded --
 24 DR. STUTIUS: Bound.

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1 THE WITNESS: Bound collection of papers.
 2 MR. SHIMOTA: Q That's what I meant, but I guess --
 3 or how would you -- in general during the course of your
 4 career, how would you keep written records of the work
 5 that you had performed?
 6 A Yeah. At the beginning the computers were not
 7 so distributed then we had more paperwork in these
 8 simple ring folders.
 9 MS. WOLF: Binders.
 10 THE WITNESS: Sorry. In these ring binders. And
 11 with all the helps you can have there, and nowadays, of
 12 course, basically on the computer systems and in
 13 addition on these ring binders.
 14 MR. SHIMOTA: Q When you mention these ring
 15 binders, what types of documents would be contained in
 16 the ring binders?
 17 A This is more -- maybe a process depending on
 18 the different persons. Normally I -- immediately I tend
 19 to keep more or less everything, and then with the
 20 months and years you sort it out and only keep what is
 21 really important, what is essential points and also
 22 sometimes later when you are very sure that a project is
 23 definitely finished and some lawyer time has also passed
 24 then you can give away all the development documents.

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1 Q You mentioned I believe notices. Can you
 2 explain to me what you meant by notices?
 3 A Notices starts when you sit together with a
 4 colleague by writing down something or then --
 5 THE INTERPRETER: It's notes.
 6 THE WITNESS: Notices is different.
 7 MR. SHIMOTA: Q I understand. Are you referring to
 8 handwritten notes?
 9 A Also, yes.
 10 Q And would it also be typed or notes that would
 11 be typed out?
 12 A Yeah.
 13 Q These would be generated either during or after
 14 meetings with colleagues?
 15 A That's possible, yes.
 16 Q What -- if you would have a meeting with a
 17 colleague, in general, what would be your person
 18 practice with respect to note taking?
 19 A That depends. That depends on the person. If
 20 you really tried to get rather deep in an idea you
 21 always will have sketches, and then the sketches look
 22 strange as you can imagine technical sketches can look,
 23 and -- yeah. Sometimes -- when it's more important you
 24 can write a summary, and this is basically done with

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1 computers.
 2 Q When you would write a summary, would you
 3 attempt to do so soon after the meeting you had with a
 4 colleague?
 5 A Not always because there's not always the time
 6 to do so, and it's not necessarily every time after a
 7 meeting.
 8 Q Okay. Well, why would you -- in what
 9 circumstances would you write a summary on a computer of
 10 the -- of a meeting?
 11 A In general now if this is a meeting with
 12 external partners we usually write a summary. In many
 13 cases also two summaries from their side, from our side.
 14 Of course, if you are asked to do so -- and in other
 15 cases -- maybe it's not summary with words, it's a word
 16 document, but also to document the results with a
 17 calculation program, for instance. If you discuss
 18 geometry of a special part then you can also fix the
 19 results in a calculation form and so on.
 20 Q You -- do you have e-mail now at Braun?
 21 A Yes.
 22 Q And do you recall when you first gained access
 23 to e-mail at Braun?
 24 A No, I'm not sure now.

4 (Pages 10 to 13)

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1 Q Would it have been more than 5 years ago?

2 A I think so. Yes, we had a different system to
3 what we use now, but that was not so common for all
4 employees. I cannot figure the date exactly.

5 Q Were there two different types of e-mail
6 systems at Braun?

7 A No. What I can remember prior to this official
8 notes system maybe only within R & D group we have
9 machines which have additional features to find out
10 telephone numbers and to leave short notes to someone
11 else, but that's not a mail system you can compare to
12 what we know today.

13 Q The system that was within the R & D group, did
14 you have access to that?

15 A I don't know because -- actually I did not use
16 this. It was not perfected. Normally I took the phone
17 to give information or to ask someone.

18 Q So am I correct that you personally would not
19 have communicated with the system in the R & D group?

20 A Yes.

21 Q And am I correct that you currently have a
22 Lotus Notes e-mail system?

23 A Yes.

24 Q And just also to be sure, you don't know when

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1 you first gained access to the Lotus Notes system?

2 A I think it was about before the year 2000, but
3 I'm not sure.

4 Q Aside from Lotus Notes, did Braun ever have any
5 other type of e-mail system except for the -- what we
6 talked about in the R & D group?

7 A Did we start with Lotus Notes? I'm not sure.

8 Q Are you aware that there is currently a patent
9 litigation between Braun and Rayovac or Remington
10 regarding shaver cleaning systems?

11 A I know this headline, yes.

12 Q In general are you aware that at least some of
13 the subject matter of that litigation is shaver cleaning
14 system developed at Braun?

15 A Could you repeat it again, please?

16 Q Sure. Are you in general aware that at least
17 part of the subject matter of the litigation is a shaver
18 cleaning system which was developed at Braun?

19 A Yes. Yes, I'm aware.

20 Q And did you have any role in the development of
21 the shaver cleaning system at Braun?

22 MS. WOLF: Objection as to form.

23 You can answer if you understand the question.

24 THE WITNESS: I think I could help my colleagues to

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1 develop or to optimize especially the blowing system
2 which the first shaver cleaning center has to dry the
3 shaver or the shaving foil after the cleaning process.

4 MR. SHIMOTA: Q Do you recall -- let me ask you,
5 what did you do to optimize the blowing system?

6 A I think, first of all, we had to find out what
7 is really necessary to fulfill this wish of drying a
8 shaver after the cleaning process, which parameters you
9 need to do this in a rather short time without being too
10 noisy, without the need to have such a big device,
11 appliance. That's basically find out the parameters.

12 Then in second step do the combination between these
13 parameters and the right fan system, and after finding
14 the right fan system to optimize the fan itself and
15 geometry around it from the point where the air goes --
16 can come in until it leaves the cleaning center again.

17 Q What parameters did you consider as necessary?

18 A For the first step it's important to know which
19 air flow of the volume in, maybe, liters per second, or
20 in our systems we prefer to talk about liters per
21 second. That's one point. And the second is pressure
22 terms, which pressure is necessary before an obstacle to
23 make this needed airflow pass.

24 Q Were there any other parameters that you can

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1 think of?

2 A Other parameters have to do with these main
3 points, yes, in this first step.

4 Q Okay. So it would be subsets of the two
5 parameters, does that make sense to you?

6 A Yes.

7 Q And how would you combine -- how would you
8 combine parameters to select the appropriate fan system?

9 A Yes. Here we have no rules in the physics of
10 blowers and fans in general that are the so-called --

11 THE INTERPRETER: Characteristics of --
12 dimensionless characteristics.

13 THE WITNESS: Dimensionless characteristics, yes.
14 And, finally, this rules or this -- whether a system
15 fits or not you can check with this dimensional
16 characteristics if they are in a certain region, in a
17 certain rank, then you can derive the feeling or
18 statement that's okay or that's not okay for this task
19 you need.

20 MR. SHIMOTA: Q So you would use these calculations
21 to essentially task various types of fan systems?

22 A Yes, theoretically. In this second step
23 because besides pressure and airflow two other main
24 parameters play a role. That's main diameter of a fan

5 (Pages 14 to 17)

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1 and the RPM, the turning speed of the fan. And air is
2 air. We know we must not deal with water, but with air.

3 Q And after you had selected the fan system, you
4 mentioned that you would optimize the geometry?

5 A Yes.

6 Q How would you do that?

7 A Maybe you can imagine that different basic
8 types of this blowers and fan systems we have axial
9 fans, don't want to get too close in details or radial
10 fans where the air flow is different to an axial fan,
11 and also so-called mixed flow sub types. You can use
12 mixture of combination, and as well as what we finally
13 should use here is so called -- in German it's
14 trommelrotor.

15 DR. STUTIUS: Drum rotor.

16 THE WITNESS: Dumb rotor. It's a special sub type
17 of a radial fan. Normal -- if it's helpful, normally
18 radial fans are -- try to do the sketch a little bit
19 bigger.

20 You have the axis here, and these are the
21 blades. Here's the rotation. Air goes in here and
22 passes in this direction. And if this is rather small,
23 the heat, and the diameter is -- the relation of the
24 diameter to the heat is big, great, then it's normal

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1 fan, but our special -- trommelrotor definitely looked
2 more than this. They have this shape. Very small but
3 high blades for the airflow which can pass like this and
4 that's -- that's a first main characteristic. And also
5 the shape of the blade itself incoming and outgoing
6 angle of this blade is different and in this or that
7 type.

8 MR. SHIMOTA: Q How would the angles of the blades
9 be different?

10 A If you have look from the top and imagine this
11 is outer diameter and that's inner diameter, and here,
12 this is how it turns, then here more often you have
13 geometries like this, maybe also up to -- sometimes also
14 for other purposes like this, but in the -- in this case
15 here it's often that it looks like this, the plate.

16 And, of course, next one and the next one and so on.
17 And this causes a different behavior of the --
18 what's the influence on the airflow. In this simple --
19 in simple words with a system like this you can better
20 create pressure, and with systems like this you are able
21 to create velocity, but here also velocity and here also
22 pressure, but that's the main task, and here this is the
23 main task.

24 Q I understand. You said that ultimately you

Page 20

1 would use this type of fan. Did you mean in the shaver
2 cleaning system?

3 A Yes. That was a result of step 2 from the
4 combination of all parameters we can see, or I can see
5 that this is the system which is -- which we should use
6 in a shaver cleaner.

7 Q And why was that?

8 A For me often it's easier to answer with a
9 sketch if it's possible, yes.

10 Q That's fine.

11 A If you imagine a hair dryer, for instance, then
12 -- I only do a sketch of the flow system. Then you have
13 an inlet grid and then somewhere the blower, then you
14 have the heater elements. Again an outlet grid and
15 maybe also a nozzle or something. And here this is a
16 system. Here you add the energy, there's a motor. And
17 here and here, here and here you have energy losses.
18 Finally, there is helpful rest to dry the hair.

19 And this is -- this is a system which needs
20 pressure here, and the pressure finally causes velocity
21 and the whole thing can work. In other situations like
22 in a -- yes, let's use a shaver cleaner. Then you have
23 the head of the shaver maybe here. And what you need
24 basically is here high velocity. Everything else is not

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1 so important. Therefore, the system has no fluid
2 resistance itself, and that's the reason why at this
3 place you need a blowing system which gives you velocity
4 primarily in its main task, in combination, of course,
5 with a high -- an airflow which is high enough because
6 you can imagine velocity can be high if it only passes a
7 very small hole that it's useless, this high velocity.
8 You need to have a high velocity at least in this
9 complete area as the same with the head of the shaver.

10 Q And so would you combine the velocity with the
11 actual geometry of where -- not the geometry of the fan,
12 but the geometry of the shoulder for the shaver? Does
13 that make sense to you?

14 MS. WOLF: Objection do form.

15 THE WITNESS: Yeah, by you understood, of course,
16 it's important to have between on the short way between
17 the blowing system and the head of the shaver also the
18 right geometry, not too wide, not too narrow, to have an
19 optimal result.

20 MR. SHIMOTA: Q Do you have any recollection of
21 what the optimal geometry is or was?

22 A No, that's not a sharp optimum. I cannot
23 answer by so and so many square millimeters, but the
24 fact is if this is the area where the whole airflow has

6 (Pages 18 to 21)

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1 to pass, if it's too -- if it's too large then the
2 velocity is too low and if the effect is not optimal.
3 If it's too narrow or too small then not sufficient air
4 can pass. Of course, then the speed is higher, but the
5 airflow itself is reduced and this is not again optimal
6 for the whole system. So here we try to find a good
7 compromise.

8 Q And how would you reach that compromise?

9 A Well, of course, you can again calculate if you
10 know the airflow, if you know the cross sectional area,
11 then you can calculate velocities. From the velocities
12 you can calculate pressures, and you can also combine
13 these pressures to what the system calculation gives you
14 and whether it fits, it's too much, too less, just to
15 find the right balance.

16 Q Is this the type of thing you would use, for
17 example, like an Excel spreadsheet, put in formulas and
18 start varying the parameters to see what is optimal?

19 A Yes, it can be done with Excel spreadsheets.
20 Maybe at this time I used programs based on Fortran
21 programming language. We had these next machines at
22 Braun at that time.

23 Q What kind of machines?

24 A Max.

Page 23

1 Q MacIntosh?

2 A Max, that was -- from Dec Network, I think.
3 They're out of business.

4 MS. WOLF: Are we going to mark these?

5 MR. SHIMOTA: We will.

6 MS. WOLF: I just want the record to reflect they
7 are not based on any examination at Braun. They're just
8 from memory of sketches, schematics.

9 MR. SHIMOTA: Q Over what period of time did you
10 work on the shaver cleaning system?

11 A That's not so easy to answer because it took
12 quite a long time from the first idea to the time where
13 they get in con -- got in contact with me to ask the
14 first questions until you really -- Braun really
15 finalized the product. Maybe 5 years.

16 Q When you say the first idea, what do you mean
17 by the first idea?

18 A The first idea belongs to the first step I
19 described before which physical data is necessary to
20 realize the idea, yeah, which pressure do you need,
21 which airflow do you need.

22 Q So you're referring to your mental processes,
23 is that what you mean?

24 A Pardon? Could you repeat that?

Page 24

1 Q I want to -- let me try to phrase it this way.

2 Whose idea were you referring to when you say the first
3 idea?

4 MS. WOLF: Object as to form.

5 THE WITNESS: Belonging to the drying system or to
6 the whole shaver cleaning system?

7 MR. SHIMOTA: Q I guess I'll ask for both.

8 A I think the idea to produce a cleaning center
9 was all -- could already exist when I started and the
10 first steps here -- I did know this, and maybe in 1993
11 or '94 I was involved in first ideas because colleagues
12 know that -- my main work here deals with fans and
13 blowers and systems like this and, therefore, they start
14 to ask me.

15 Q Who started to ask you?

16 A Of course, Mr. Braun who has this job and in
17 this first time I think it was the only person who gets
18 in contact with me.

19 Q Did anyone else subsequently get in contact
20 with you?

21 A Later after retirement of Mr. Braun.

22 Q And who would have gotten in contact with you
23 later?

24 A Later it was Mr. Höser and also colleagues who

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1 work -- that time in the small group of Herr Höser.

2 Q And do you recall the names of those
3 colleagues?

4 A One was Mr. Jung. Hopefully Jahn is the
5 surname. I'm not sure.

6 Q Alf Jahn?

7 A Alf Jahn, yes. Not sure whether the second one
8 Norbert Kreutz is from the beginning of that time
9 involved and Jurgen Höser himself.

10 Q Do you recall any other names of people who
11 contacted you for assistance?

12 A I cannot remember other names.

13 Q Now you mentioned the binders that you kept
14 with your notes. Did you keep a binder related to your
15 work on the shaver cleaning system?

16 A No. Not a complete binder because that was not
17 a major project for me.

18 Q Did you keep a file related to your work or did
19 you keep any written records related to your work on the
20 shaver cleaning system?

21 A I have a binder with the headline in the sense
22 of miscellaneous and among these blowers and blower work
23 for special blowers there is a small section about
24 cleaning center.

7 (Pages 22 to 25)

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1 Q During the course of your career how many pages
2 of work do you believe you generated with respect to the
3 shaver cleaning system?

4 A It was a mixture between pages and documents on
5 the computer. So it -- if -- when I know the
6 information is on the computer then I do not tend to
7 produce too much paper. If I have to if I have to look
8 it up now not more than 10 paper maximum, 10 sheets.

9 Q 10 sheets of paper?

10 A 10 sheets of paper, yeah.

11 Q Do you -- well, how much information would you
12 have retained on the computer?

13 A This was special information belonging to the
14 calculation with dimensionless characteristics and, of
15 course, calculations belonging to special geometry here,
16 angles, RPMs, diameters, height and in combination with
17 the possibility to create the needed airflow.

18 Q Did you keep this information on a disk or how
19 did you store it?

20 A That was stored on the computer, but in
21 combination with old -- older programs and documentation
22 systems.

23 Q Stored where on the computer, just like a
24 main --

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1 A A main storage somewhere down in the basement
2 of the old building. Not on a personal computer. Not
3 everything on the personal computer.

4 Q Do you know whether that computer still exists?

5 A I definitely know that it does not -- does not
6 exist anymore.

7 Q Okay. And do you know what happened to it?

8 A It was not up to date any longer and was
9 replaced by other machines.

10 Q Do you know when it was replaced?

11 A Not exactly. The whole system as always was
12 several different machines and they started to give away
13 the first one and so on until the last of the system has
14 to leave.

15 Q Okay. Did you maintain any of the electronic
16 information on a personal computer? Let me reask it to
17 make sure.

18 Did you maintain any of the information related
19 to your work on the shaver cleaning system on your
20 personal computer?

21 A We had a system or a method to collect
22 important documents or calculations, also programs to
23 calculate. As you can imagine you need a lot of time to
24 build up calculation programs, and, therefore, it's hard

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1 just to give away -- but these were Fortran, written in
2 Fortran programming language. And now I have to say I
3 must look it up whether there is still something left
4 from this on a special -- on a special -- device --

5 DR. STUTIUS: Disk drive.

6 THE WITNESS: Disk drive.

7 MR. SHIMOTA: Q Okay. Well, in connection with
8 this litigation, did attorneys ask you to collect
9 documents related to your work on the shaver cleaning
10 system?

11 A To keep some of these documents and programs
12 was basically my own intention, yes.

13 Q Sure. I'm not sure if you understood the
14 question. At some point did attorneys come to you and
15 ask you for documents in your possession related to your
16 work on the shaver cleaning system?

17 A When we worked together we exchanged the
18 knowledge and the documents, and, therefore, they should
19 have what they know immediately, what we worked out
20 immediately, and, therefore, that's --

21 DR. STUTIUS: I don't know if he understood your
22 question. If the attorneys approached him to transfer
23 that information to the attorneys, right?

24 MR. SHIMOTA: Yes.

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1 THE WITNESS: No, not in combination with attorneys.

2 MR. SHIMOTA: Q So I want to make sure that you
3 understood me. You are aware that there is a case, a
4 patent litigation between Rayovac and Braun currently,
5 correct?

6 A Yes.

7 Q And in connection with that -- let me just set
8 it aside.

9 In the past year have attorneys come to you,
10 attorneys from either outside law firm or within Braun
11 itself, come to you and asked you to provide them with
12 your documents related to -- documents you possess
13 related to your work on the shaver cleaning system?

14 A No, no.

15 Q So would you be able to check to see if you
16 still maintained electronic information -- would you be
17 able to check to see whether you maintained -- would you
18 be able to check to see if you still had electronic
19 information related to your work on the shaver cleaning
20 system on your personal computer?

21 A The Windows Explorer has such a function.
22 That's the way it could work, such function with date,
23 from-to.

24 Q And have you recently performed that search

8 (Pages 26 to 29)

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1 function?

2 A I tried, but only with few results.

3 Q Why did you try?

4 MS. WOLF: That's fine. You can answer that.

5 THE WITNESS: In combination with our meeting we had
6 before and you ask me whether I have possibility to find
7 documents, therefore, I started to search machine.

8 MR. SHIMOTA: Q That's where I think there's some
9 confusion.

10 So during this past week, past week attorneys
11 asked you to look for documents, is that right?

12 A That's right, this week.

13 Q Had you been asked to look for documents by
14 attorneys prior to that time?

15 A No, definitely not.

16 Q So I take it then you would not have provided
17 any documents to attorneys related to your work on the
18 shaver cleaning system prior to that time?

19 A That's right.

20 Q I understand. And in connection with the
21 request that you received this week, you were unable to
22 locate documents or the electronic information
23 pertaining to your work on the shaver cleaning system,
24 is that correct?

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1 MS. WOLF: Objection.

2 MR. SHIMOTA: Q I misstated your testimony.
3 Apologize.

4 During this past week you were able to locate a
5 few results within your personal computer, is that
6 correct?

7 A That's correct, few results.

8 Q When you say a few, can you tell me how many?

9 A I handed -- show you two documents, that's
10 right? Yes, two.

11 Q I'll mark them as exhibits. We'll mark them as
12 an exhibit in a second -- I can do it. They're just out
13 of order. I'll mark as defendant's Exhibit 39, a
14 document that does not bear a Bates number yet, but
15 appears to be a memo from yourself to Jurgen Höser on
16 March 26th, 1995.

17 (Exhibit 39 marked as requested)

18 A That's one of these documents, yes.

19 Q I'll mark as defendant's deposition Exhibit 40,
20 a document which appears to be authored by yourself on
21 September 12th, 1997.

22 (Exhibit 40 marked as requested)

23 A Yes.

24 Q Are these documents that you were able to

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1 locate on your computer?

2 A That's are the two documents I found this week.

3 Q Were you able to locate any others on your
4 personal computer?

5 A Not so far.

6 Q You mentioned that you -- you once had a note
7 -- miscellaneous notebook had some documents in it
8 related to your work on the shaver cleaning system.
9 Does the miscellaneous notebook still have those
10 documents related to the work on the shaver cleaning
11 system?

12 A Here I'm not sure because so far I did not find
13 this ring binder.

14 DR. STUTIUS: Ring binder.

15 THE WITNESS: Right binder.

16 MR. SHIMOTA: Q So -- okay. Let me see if I
17 understand. At present you don't know where the
18 miscellaneous binder is?

19 A This should be somewhere among lots of
20 documents I have in my box, but not in the first row
21 and, unfortunately, I really had no time to spend more
22 than this computer search time to find anything.

23 Q To the extent those documents still do exist,
24 we would request production of them. Set those aside.

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1 We'll ask you about them. I will ask you about them.

2 I'm guess going to mark now first as
3 defendant's Exhibit No. 37, English translation of a
4 document bearing the Bates number B4610 to B4616.
5 (Exhibit 37 marked as requested)

6 Q I have the German version too so you don't have
7 to worry. A document -- I'd like to mark as defendant's
8 deposition Exhibit No. 38 the German version of B4615 to
9 B4616 which appears to be a memo written by yourself on
10 -- in August -- August 3rd of 1993.

11 (Exhibit 38 marked as requested)

12 Q Take whatever time you need to review the
13 document, but if afterwards you can tell me whether you
14 recognize it, which would be defendant's Exhibit No. 38.

15 A It's not so difficult to recognize because I
16 see my handwriting here, and it's also my style of
17 writing at that time.

18 Q When you say your style of writing, what do you
19 mean by your style of writing?

20 A Maybe you know people who studied mechanical
21 engineering tend to always to produce this rectangular
22 lines.

23 Q Let me ask this question. Is this a document
24 -- and -- did you produce this document to lawyers in

9 (Pages 30 to 33)

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1 connection with this litigation? Let me ask -- let me
2 try.

3 Did you find this document in your personal
4 files and give it to lawyers?

5 A No.

6 Q At any time.

7 A No.

8 Q Doctor -- you see the name Dr. Jung?

9 A Uh-huh.

10 Q Do you know whether Dr. Jung has provided any
11 documents to lawyers in connection with this litigation?

12 MS. WOLF: Objection.

13 THE WITNESS: I don't know.

14 MR. SHIMOTA: Q Do you know -- let me ask you this.

15 Do you have any reason to believe that this
16 document would have been provided to the patent
17 department at some point in the early '90s?

18 A The early '90s?

19 MS. WOLF: Objection.

20 THE WITNESS: I can't tell you what happens with
21 this document. What I can tell you I typed it in and
22 distributed it and then took its way.

23 MR. SHIMOTA: Q And the people to whom it was
24 distributed would have been Mr. Braun, Dr. Pahl and

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1 leader of the shaver department. He should know what is
2 happening in this department.

3 Q Did you know whether Dr. Pahl had personally
4 worked on the shaver cleaning system at this time? When
5 I say at this time, I mean approximately August of '93.

6 A That depends on the definition of personally
7 worked. I'm sure that he did no sketches on the big
8 box, he did not -- no calculations. I cannot imagine
9 that he did special investigations in the lab or
10 something.

11 Q Well, at this point in time had you seen a
12 shaver cleaning -- had you actually seen a physical
13 shaver cleaning system?

14 A Yes, but this was more -- different to what
15 appeared in the market later on.

16 Q This was in early -- this was an early model?

17 A An early model, yes.

18 Q And at that time did you have any knowledge as
19 to who had developed that model?

20 A The shaver cleaning model always were in
21 connection with Mr. Braun, yes.

22 Q So it was your belief that Mr. Braun had
23 developed the model of the shaver cleaning system?

24 A Yes.

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1 Dr. Jung?

2 A Yes.

3 Q And would you have distributed it to anyone
4 else to the best of your recollection?

5 A No, I don't think so.

6 Q During or at or near this time period did you
7 ever have any discussions with attorneys at Braun
8 regarding the shaver cleaning system?

9 A No, only discussions with technical colleagues
10 from the technical department.

11 Q Did you have discussions with Dr. Pahl?

12 MS. WOLF: Objection. Regarding the shaver cleaner?

13 MR. SHIMOTA: Q I mean did you know Dr. Pahl?

14 A Yeah, because normally you know all the
15 directors here in house and, therefore, also know
16 Dr. Pahl.

17 Q Let me ask you this. Why did you distribute
18 contribute this memo to Dr. Pahl?

19 A He was not manager, supervisor of Mr. Braun and
20 Dr. Jung was my boss at that time.

21 Q Did the -- at that time did you know whether
22 Dr. Pahl had any involvement with the shaver cleaning
23 system?

24 A Of course, involvement, sure. He was the

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1 Q Did Mr. Braun tell you that he had developed
2 the shaver cleaning system?

3 A Yes, it was quite obvious. I cannot tell you
4 whether he came to me and tell me here, I developed this
5 model. I assumed it.

6 Q Well, in general how did you start working with
7 Mr. Braun on the shaver cleaning system?

8 A Okay. It's long time ago. I can't tell you
9 how the start was exactly. Normally we had phone calls,
10 can you give me a hint, do you have additional ideas,
11 can we come together to discuss this and so on.

12 Q Do you have any recollection as to how much
13 earlier than August 3rd of '93 you would have begun
14 working with Mr. Braun?

15 A In my feeling we started somewhere in 1993
16 because especially this paper belongs to the first step
17 I explained to find out parameters which we need to have
18 a good drying result finally, yeah.

19 Q You see at the top of this page at least in my
20 English version it says meeting notes.

21 A Yes.

22 Q Was it regularly your practice -- I think you
23 said earlier you had a practice if a project was
24 important enough you would type out meeting notes.

10 (Pages 34 to 37)

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1 A Yes.

2 Q Am I correct this was a project that you
3 considered important?

4 MS. WOLF: Objection.

5 You can answer.

6 THE WITNESS: Maybe this was the kind of milestone.
7 At that time it was important to document that before
8 you spend a lot of money trying this or that, and maybe
9 a third method you should know what -- which parameters
10 you have to know to go forwards in the right direction
11 without losing time and money. And in this context it's
12 helpful to have more or less shop document and to fix
13 the main ideas, yeah, that was it.

14 MR. SHIMOTA: Q Do you recall -- at or near this
15 time period do you recall whether any other milestones
16 occurred?

17 A I think a second milestone after we know more
18 or less what we need here is to in combination with
19 maybe the second step to decide what I sketched here
20 that this type of blower is the correct one and not
21 different blowers they might have used before because at
22 that time Braun also produces small hair care appliances
23 and inside we had small blowing systems. And I can
24 remember they -- he started to build up his model with

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1 perfect blowing wheel itself, but also the whole
2 surrounding has to be adopted, especially when you use
3 blowers s like this.

4 Q How does it -- was it adapted the way we
5 discussed earlier, the surrounding, or you mean
6 something different?

7 MS. WOLF: Objection.

8 THE WITNESS: What you need if you have a look from
9 the top and, finally, air has to leave the system
10 somewhere here, but, you know, it blows out air
11 everywhere around the circumference, and then you
12 have -- let me say to collect this airflow and direct it
13 to this main area.

14 And this is done with a kind of spiral
15 geometry. And this spiral geometry has to be good
16 enough -- not something like this, bigger, bigger, but
17 very continuous, continuously, this was one point. And
18 also the air comes in from this direction and somewhere
19 in the outer surface the whole system has an opening,
20 and also this geometry can be optimized if this is the
21 final point where the air goes in here, and then the
22 geometry up to this point, it's -- it's not bad if it
23 has the basic shape like this, and this in combination
24 with given design of the whole appliance and -- if I can

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1 an axial blowing system and that was one result that the
2 whole system can be improved when you change from the
3 axial system to the so-called trommelrotor.

4 Q Do you know when that second milestone would
5 have occurred approximately?

6 A Not exactly. I'm not sure whether Mr. Braun or
7 later Jurgen Höser did this step.

8 Q What would you need to see in order to be able
9 to answer my question, if anything? Let me reask that.

10 Are there any documents which would refresh
11 your recollection as to when the selection of the
12 particular fan occurred?

13 A If you could show me the models and maybe in
14 the meantime you know the time when they were built,
15 then I can tell you this model has an axial fan and this
16 was the first with the other system.

17 Q We might be able to do that. Were there any
18 other milestones aside from the first and second --
19 well, you described this document as a milestone. You
20 remember a second. Were there any other milestones?

21 A It depends on the definition of milestone, of
22 course. During the third development period we had a
23 lot of detail work together with the guys in the Höser
24 group because it's not only important to have the

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1 remember the whole system had a special angle inside
2 that makes it a little bit more tricky. Especially this
3 point to mention perhaps one detail. After the blower
4 you have a high pressure and here you have the normal
5 pressure, the ambient pressure, and it's always helpful
6 if you have geometry here that it's not possible or not
7 so easy possible to let the airflow back then the
8 efficiency is not so high.

9 MR. SHIMOTA: Q You mentioned that a special angle,
10 is that a special angle in the trough to enable
11 draining?

12 MS. WOLF: Objection.

13 MR. SHIMOTA: Q Do you recall that?

14 A Yes, the whole shaver is not in the correct
15 angle positioned inside, but maybe to 50 or 10 -- turned
16 in two directions, and, therefore, also the final cross
17 sectional area to provide air to the head of the shaver
18 cleaner should have --

19 THE INTERPRETER: Angle or tilt.

20 THE WITNESS: The same angle, yes.

21 MR. SHIMOTA: Q Would that have been around 1987
22 where there would have been tilt to the --

23 A I know these details I discussed together with
24 Jurgen Höser well as Alf Jahn, and later also with

11 (Pages 38 to 41)

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1 Norbert Kreutz.

2 Q Were there any other milestones aside from what
3 we've just discussed which you can think of?4 A No, I think if we call it milestone these are
5 the basic steps. Everything else is more or less detail
6 belonging to the tool itself and to things like here.7 Q I think you said you worked on this project,
8 and I suppose I'm not saying continuously, but I worked
9 on this project over a period -- well, your work on the
10 shaver cleaning system took place over approximately 5
11 years, is that correct?

12 A That was my feeling before and up to now, yeah.

13 Q Would you characterize your work as difficult?

14 A Not difficult. It was interesting because this
15 system is different to what we normally have in hair
16 dryers and the rules and the formulas are a little bit
17 different and, therefore, it was interesting for me.18 MS. WOLF: Jim, when you get to a good point, if we
19 could just take a break for a few minutes.

20 MR. SHIMOTA: Sure. Why don't we take one now.

21 THE VIDEOGRAPHER: We're going off the video record
22 of tape number 1 at 11:24 a.m.

23 (Off the record)

24 THE VIDEOGRAPHER: We're going back on the video

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1 A With ambient temperature.

2 Q You mean room temperature? Yeah. That's same
3 thing.4 So is it correct that the control type that
5 you're describing was not heating the air from the
6 blowers?

7 A Yes.

8 Q It states in the next sentence, the drying
9 times are, however, still too long according to
10 Mr. Braun or the drying room result is not satisfactory.11 Do you recall how long the drying times were
12 approximately at that point?

13 A I can't remember this.

14 Q Would it have been longer than an hour?

15 A I don't think so. Not longer than an hour.

16 Finally, my cleaning station at home needs approximately
17 maybe 15 minutes for the whole process and -- 15 or 20
18 minutes.19 Q Was -- was -- at that point in time to the best
20 of your recollection was 15 minutes approximately the
21 target that you and Mr. Braun were shooting for?

22 MS. WOLF: Objection.

23 THE WITNESS: I don't know exactly.

24 MR. SHIMOTA: Q It also says that or the drying

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1 record of at 11:37 a.m. Here continues tape 1.

2 MR. SHIMOTA: Q If you could direct your attention
3 again to defendant's Exhibit 38, please. I'll read in
4 English and you can look at the German version, of
5 course. It states -- in the title it says, principle of
6 the prototype, actual state.

7 What do you mean by principle of the prototype?

8 A The prototype means they already had a
9 principle sample, functional sample available and --
10 yes. I think he showed it to me, and as I can read here
11 he complained about noise, that it's not efficient
12 enough.13 Q So is this -- is it correct that this is a
14 description -- at least a description of some of the
15 operation of the prototype which Mr. Braun showed to
16 you?

17 A Yeah, yes, sir.

18 Q It states in the first sentence, the used
19 shaver is placed downwards with the soiled shaver head
20 into the cleaning device and is firstly rinsed with
21 cleaning fluid and is then dried in a coiled air stream.
22 Do you see that?

23 A Yeah.

24 Q What did you mean by cold air stream?

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1 result is not satisfactory.

2 Aside from the time length, was there anything
3 else that you recall which was unsatisfactory?4 A What can happen is that the head of the shaver
5 was already dry in one corner and the other corner was
6 still wet so that the distribution was not so perfect.

7 Q And why did that affect occur?

8 A One reason could be that the airflow was not
9 distributed -- not evenly, but has a spot at one side
10 and too less airflow at the other point.11 Q Do you recall any other drying results which
12 were unsatisfactory?13 A No, it took too long time and maybe it was
14 uneven, yes.15 Q And it says in the second sentence that a
16 further problem was the noise from the blower?

17 A That's right.

18 Q And is the noise -- would the noise be similar
19 to what you would hear with a hair dryer today?20 A Depends on the definition of similar. Because
21 it's similar to the hair dryer when you compare it to
22 the noise of a music instrument, for instance.23 Q Well, how -- what -- to the best of your
24 recollection what about the sound was disturbing, just

12 (Pages 42 to 45)

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1 the volume or --

2 A As I can conclude from what I see here they
3 used a rather small axial blower from a hairstyler, long
4 but thin diameter. Therefore, it was necessary to
5 increase the speed of the motor, and this is always the
6 reason for higher velocity and also for what we call
7 sharp discrete peaks, something like a whistle, nervous.
8 -- not nervous, but nerving --

9 Q You heard a whistling sound?

10 A Yes, always the same tone and not continuous or
11 -- even sound.

12 Q I understand. It also lists there, I think, 31
13 millimeters?

14 A That's what they found and what was feasible
15 for this first models, small, small blower.

16 Q What dimension is the 31 millimeters referring
17 to?

18 A It should belong to the outer dimension of the
19 blower itself. Normally the blower is in a shroud, and
20 then what's really of interest for the function is the
21 outer dimension of the blower. Because if you increase
22 the thickness of the wall of the shroud then that cannot
23 help but makes it only thicker.

24 Q When you say outer dimension, you mean the

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1 outer diameter?

2 A Outer diameter, yes.

3 Q Underneath that paragraph it states improvement
4 of the drying qualities. Do you see that?

5 A Uh-huh.

6 Q Was it the purpose of your meeting with
7 Mr. Braun to discuss how to improve the drying qualities
8 of the shaver cleaning system?

9 A Yes.

10 Q Did Mr. Braun ask for your advice as to how to
11 improve the drying system -- excuse me. Improve the
12 drying in the shaver cleaning system.

13 A Yes, he asked for my experience and advice.

14 Q And, in general, what did you advise Mr. Braun?

15 A I think the main points are also written down
16 in this paper. The -- as I can see it now it was not
17 quite clear how many -- which quantity of airflow they
18 really need to have a good result, and it's possible
19 with different methods to create an airflow to find out
20 what you -- to first to find out what you need. And I
21 think I made some suggestions how this could be realized
22 to find out what is a good solution and what you can
23 also do certain variations of this.

24 Q Would that be represented by the drawings in

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1 the memo?

2 A Yes, also.

3 Q Were there any other -- aside from what's
4 represented in the drawing, were there any other
5 suggestions that you made? Let me ask this. I'm sorry.
6 I thought maybe the question was confusing.

7 A Not so easy to answer.

8 Q There are -- underneath it says improvements of
9 the drawing quality, then there are numbered paragraphs,
10 1 through 5. Do the numbered paragraphs numbered 1
11 through 5 represent suggestions that you made to
12 Mr. Braun for improving the drying in the shaver
13 cleaning system?

14 A Yes. Here we try to summarize the points we
15 worked out together and the points we discussed.

16 Q Okay. I mean, for example, in point 4 there's
17 recommended it states in the case, the drying still
18 takes too long with these measures. The installation of
19 a small heater for the air stream should be discussed.

20 Now, did you suggest to Mr. Braun to -- he
21 might want to include a heater with the blower to
22 improve the drying?

23 A I cannot answer with yes because it's hard to
24 remember. If you deal with hair dryers then that's a

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1 known principal, but not only for me also for other all
2 others here in the company.

3 Q Well, the participants in this meeting were
4 yourself and Mr. Braun, correct?

5 A Yes.

6 Q So is this reflecting discussions you had with
7 Mr. Braun, is that correct?

8 A Yes, but here our common ideas are written
9 down, not only my opinion. It's what we discussed
10 together, what we found out together.

11 Q So point 4 -- well, is point 4 to the best of
12 your recollection a common idea that you had with
13 Mr. Braun?

14 A Maybe this belongs to patent situation. I
15 cannot definitely tell you now whether he already had
16 the idea to combine it with a heater or whether it comes
17 from my side because it's not so -- not so far away.
18 Everyone knows if the air is a little bit hotter then
19 it's helpful to dry something.

20 Q When you say everyone knows, what do you mean
21 by everyone?

22 A Everyone -- maybe everyone in this room even
23 knows.

24 Q You give me a lot of credit.

13 (Pages 46 to 49)

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1 A Hot air. Hot air is always better than cold.

2 Q Well, if Mr. Braun did not suggest using a
3 heater with the fan in this meeting, is it fair to say
4 it would have been your suggestion?

5 MS. WOLF: Object as to form.

6 THE WITNESS: If not what would have happened?

7 MR. SHIMOTA: Q Let me ask this question. Would
8 there have been anyone else at this meeting aside from
9 yourself and Mr. Braun who would have suggested using a
10 heater with the fan?

11 MS. WOLF: Objection.

12 THE WITNESS: In this meeting we were he and me and
13 no one else so far.

14 MR. SHIMOTA: Q So it was yourself and Mr. Braun.

15 A Myself and Gebhard Braun I think is his first
16 name, Gebhard Braun.

17 Q Is there anything which would be able to assist
18 you in remembering whether or not the idea to use the
19 heater would have been yours or Mr. Braun's or a joint
20 idea?

21 MS. WOLF: Objection.

22 THE WITNESS: If you can find the paper showing the
23 heater then I could not answer if the idea already
24 exists, if it was new. Basically a combination of a

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1 A Yes.

2 Q What situations have you encountered those
3 challenges?

4 A During these first years I did not -- I worked
5 in the research department and here it -- my task was
6 not only to develop axial blowers, axial fans,
7 especially for hair dryers, but also for other blowing
8 systems, also for kitchen machines, for ventilators and,
9 finally, for an idea like this. And, therefore, it was
10 the whole range I tried to occupy with my knowledge.

11 Q And do you know why Mr. Braun -- did Mr. Braun
12 ever express any reason which he asked you in particular
13 to help him with the work on the shaver cleaning system?

14 A That was more or less a normal practice. You
15 start with a project for your own and after these first
16 steps if something more complicated occurs, then you get
17 in contact with at least so-called experts.

18 Q So -- I mean is it generally the case at Braun
19 that as the design is progressing if a particular
20 problem is encountered then an engineer will seek an
21 expert to assist him?

22 A Yes.

23 Q And in assisting Mr. Braun to overcome these
24 problems with the prototype, you called upon your expert

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1 blower and a heater element was not new at all for
2 appliances we built, case of hair dryers.

3 MR. SHIMOTA: Q I understand. So I guess back
4 right before the break we -- I asked you whether you
5 considered your work on the shaver cleaning system to
6 be -- I think I used term the difficult -- whether you
7 considered your work on the shaver cleaning system to be
8 challenging.

9 A Yes, it was some kind of challenging because as
10 I told you it was not -- the system was difficult to
11 what we normally use in hair dryers, and, therefore, it
12 was challenging and interesting to complete the
13 knowledge in this -- knowledge in this special
14 direction.

15 Q And what was challenging about the work in
16 particular?

17 A Yes. Normally you have to develop in
18 connection with hair dryers a system which finally
19 provides high pressure. And as I explained before, and
20 here you need to find a system which basically gives you
21 a high velocity. And that was the main difference
22 besides the whole geometry and things like that.

23 Q And these -- were these challenges which you
24 had encountered previously in your work at Braun?

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1 -- the expertise that you had gained through both your
2 education and your experience at Braun, is that correct?

3 MS. WOLF: Objection.

4 THE WITNESS: Yes.

5 MR. SHIMOTA: Q If you could turn back to the first
6 page of this document. If you see listed under the
7 second bullet point there's indicated a laminar flow
8 element for flow rate measure. Do you see that?

9 A Uh-huh.

10 Q Tell me what your understanding of the laminar
11 flow element is?

12 A This is a special measuring instrument to
13 measure the amount of airflow passing through a system,
14 through a pipe, small pipe.

15 Q What would the purpose of the laminar flow
16 element have been in the shaver cleaning system?

17 A The discussion was not like this to integrate
18 it into the system, but to use it to find out which
19 parameters, especially which airflow would be optimal
20 for the system. So the idea was to measure the airflow
21 outside with this kind of instrument because if you only
22 blow like this, you feel it, maybe you can also measure
23 how long it takes to dry something, but, finally, you do
24 not know how many air this really is. So you have to

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1 measure it and that's not so easy sometimes.

2 DR. STUTIUS: Trivial.

3 THE WITNESS: Not so trivial.

4 MR. SHIMOTA: Q What -- when can it be difficult or
5 nontrivial, under what circumstances can it be
6 nontrivial?

7 A In general if I blow like this, nobody knows
8 how many liters per second go through my hand now. And
9 to know this you have to use instruments like this.

10 There are a lot of different instruments and this is --
11 I think a very precise instrument to find this out.

12 Q How did you learn about measuring or
13 instruments for measurement of the sort we're talking
14 about?

15 A I think that was part of my job here, not only
16 theory, but also lab work and practical things.

17 Q So would have been some of the education you
18 received either through your studies at the university
19 or practical experience at Braun?

20 A Yes, learning on the job.

21 Q And I guess for testing, if you look to the
22 next bullet point, what would have been the purpose of
23 the one or more narrow inflow nozzles?

24 A The idea was if you concentrate the airflow

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1 Q When you say relatively, how -- to your
2 recollection how closely would the holder conform to the
3 shape of the shaving head?

4 A Well, the design sign of the shaver itself has
5 a lot of details on here, on the left and right side.
6 And for the cleaning center it's more or less only
7 important to have the main outer shape in a certain
8 length.

9 Q Do you know -- similar to the question I asked
10 before. The improved air ducting, whether that would
11 have been your idea, Mr. Braun's idea or an idea which
12 you developed together?

13 A Air ducting is -- of course, he ask me what can
14 be, what can I improve with the whole geometry to have a
15 better result finally. And there are several points as
16 maybe I sketched here. This would be an example for a
17 bad air ducting and that's obviously better there.

18 Q Okay. Do you know if -- if when you expressed
19 these idea -- that particular idea to Mr. Braun whether
20 he disagreed with you?

21 MS. WOLF: Objection.

22 MR. SHIMOTA: Q Let me ask it. You're right.

23 Did Mr. Braun ever express disagreement to you
24 with -- did Mr. Braun ever express disagreement with the

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1 directly to the point where the foil is still -- is wet
2 and not somewhere around where you don't -- where it
3 makes no sense for it to pass, then the efficiency can
4 be increased. Also to direct the air flow directly to
5 the point where it's needed.

6 Q That was the purpose of having the nozzles
7 being small?

8 A Yes, yes.

9 Q Relatively or --

10 A If it's small then the velocity can be higher
11 up to a certain amount. If you make it really very,
12 very small then the opposite thing can happen, yes.

13 Q Under the fourth bullet point it states that
14 the holder for shaver head with improved air ducting.
15 What did you mean by holder for shaver head?

16 A Second, please.

17 Q Sure.

18 A I think this belongs to geometry of the -- of
19 where you put the shaver head inside. If this geometry
20 is different to the shape of the shaver itself, then it
21 can cause troubles. If this is the shaver head, and the
22 geometry would have been like this, that's not optimal.
23 It's better to have a more or less similar geometry
24 around the head of the shaver.

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1 ideas that you presented to him?

2 A No, I don't think so. It was a technical
3 discussion not a principle discussion.

4 Q When you say a technical discussion as opposed
5 to a principle discussion, what do you mean?

6 A Technical discussion you can argument with
7 formulas, with technical knowledge, and that's different
8 maybe discussion about what you believe or what you do
9 in your leisure time.

10 Q I see what you mean. If you look under point
11 1, it says, the nozzle shaped inflow on the outlet
12 cross-cut should have the same longish, narrow shape as
13 the shaving foils. Do you see that?

14 A Uh-huh.

15 Q Why should the nozzle shape inflow on the --
16 well, first I'll ask you now, was that your opinion,
17 Mr. Braun's opinion or a joint opinion?

18 A I think it was a joint opinion.

19 Q And why was that your joint opinion?

20 A Because it was no discussion. If this is the
21 side of the shaver head with the shaver here it's always
22 better to have the airflow from here to here and not
23 only here and here, like a spot, but on a
24 cross-sectional area, what's written down here which has

15 (Pages 54 to 57)

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1 more or less the same size as head of the shaver.
 2 Q Same size in what respect?
 3 A The width of the shaver. There's no need to
 4 enlarge this area where the air can pass because here it
 5 makes no sense. It passes the shaver. But if it's like
 6 this then the principle is okay.
 7 Q Okay. So basically the holder would conform
 8 tightly to the outside of the shaver head, is that what
 9 you're saying?
 10 A Yeah, yeah.
 11 Q And that -- well, having the outside of the
 12 holder conform tightly to the shaver head was
 13 advantageous in terms of drying?
 14 A Yes, because then the efficiency can be
 15 increased, yeah.
 16 Q I think you said it's always better, is that
 17 correct?
 18 A Yeah, if you imagine air passing in regions
 19 like here, it's more or less useless.
 20 Q If you look in the last sentence under point 1,
 21 it says a slightly inclined inflow in the direction of
 22 the tip of the shaver head is also advantageous.
 23 I'll ask you, was that your opinion,
 24 Mr. Braun's opinion or an opinion you developed jointly

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1 with Mr. Braun?
 2 A This comes from the discussion. Exactly I
 3 cannot tell you.
 4 Q So this would have just arisen out of the
 5 discussions you were having with Mr. Braun?
 6 A Yeah, yes.
 7 Q Why was a slightly inclined inflow
 8 advantageous?
 9 A The catches -- partly can answer this. If --
 10 again this is the shaver head from the side and this is
 11 bottom. If the airflow starts here then it has the
 12 chance what you do not want to go in this and this
 13 direction.
 14 This is the direction you want the air to pass
 15 and this is a kind of loss. And if you have a system
 16 more like this, and this is the inflow angle which is
 17 discussed here, then it has no chance for a turn around
 18 and go this way. Then it more or less 100 percent has
 19 to take this way passing at the right position and do
 20 its work.
 21 Q What angle would be optimal to achieve that
 22 effect?
 23 MS. WOLF: Objection.
 24 THE WITNESS: It's hard to say. This is not optimal

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1 if it comes right from the top. It's the same, not
 2 optimal. Somewhere in the middle or little bit less.
 3 Q So you'd need to know the shape of the holder
 4 for the shaver head in order to answer that question,
 5 correct?
 6 A This question can be answered in -- when having
 7 all details together, you know.
 8 Q Okay. Was that -- how did you come to -- how
 9 were you able to determine with Mr. Braun that the
 10 slightly incline -- use the right word. The slight
 11 incline in the inflow was advantageous?
 12 A Again the basic idea was to increase the
 13 efficiency. And as I explained here, we looked for ways
 14 that each particle inside this air flow is helpful for
 15 this purpose here, what do you want to do.
 16 Q Well, how were the two of you able to come to
 17 the last conclusion expressed under point 1 is my
 18 question.
 19 A Point 1.
 20 Q The statement a slightly inclined inflow in
 21 direction of the tip of the shaver head is also
 22 advantageous.
 23 A One reason as I tried to explain here, other
 24 angles are not so advantageous, therefore, it's always

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1 helpful to have no additional obstacles in the airflow,
 2 and this is one way to realize this.
 3 Q You were able to -- were you -- I guess my
 4 question is, were you able to come to this conclusion
 5 based upon your past experience and course work?
 6 A Of course, if you read a lot of literature and
 7 books about fluid dynamic resistance and rules about
 8 this then this is common knowledge more or less.
 9 Q That would be a relatively select group though,
 10 people who have that knowledge, correct?
 11 A Again please.
 12 Q That's not -- that's a smaller portion -- a
 13 relatively small portion of the general populace who
 14 reads a lot of books on fluid mechanics?
 15 A Maybe it's also in the lesson how --
 16 DR. STUTIUS: Skilled in the art.
 17 THE WITNESS: Baseless.
 18 MR. SHIMOTA: Q Withdraw that question.
 19 A Avoid corners and edges and all things like
 20 this.
 21 Q Under point -- direct your attention to
 22 point 2. It says the blower used must, therefore, be in
 23 a position to build up a relatively high pressure for
 24 the flow through of this nozzle/these nozzles and the

16 (Pages 58 to 61)

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1 subsequent flower systems. Do you see that?

2 A Yes.

3 Q Why was that -- why is that opinion expressed
4 in this memo?

5 A As I mentioned before there is a strong
6 connection by formula between the air velocity and the
7 pressure. It's always easy if you have pressure to
8 create velocity, and, therefore, if your aim is to press
9 a certain airflow through a given geometry of a nozzle,
10 you need a certain amount of pressure to do this, and
11 that's basic idea which is expressed here.

12 Q Was that your idea, Mr. Braun's idea or a joint
13 idea?

14 A This formula exists a very long time before,
15 Bernoulli and company.

16 DR. STUTIUS: 1800. It's called dynamic pressure.

17 MR. SHIMOTA: Did you think then this was -- the
18 principle expressed there was obvious?

19 MS. WOLF: Objection.

20 THE WITNESS: Yes.

21 MR. SHIMOTA: Q Is that why in the next sentence --
22 because of that equation in the next sentence you say
23 arithmetic estimates are possible?

24 A Yes. That belongs to the -- the dimensionless

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1 characteristics. To use these formulas you need at
2 least these four basic data like pressure, air flow, RPM
3 and diameter and so on.

4 Q Did you perform calculations on that point?

5 A Yes, yes. This example is a kind of
6 calculation like this.

7 Q You're pointing to Exhibit 40?

8 A Exhibit 40, yes.

9 Q We'll get to that in a second. Under point 2
10 again, states at the bottom, the performance of a small
11 Mabuchi CF air styler is adequate. What was a small
12 Mabuchi?

13 A There is some Mabuchi, Mabuchi, different
14 names, Mabuchi Company producing small DC motors for a
15 lot of different appliances and depending on how many
16 air you need, the amount of airflow, you have to choose
17 more or less bigger size or small one. And here the
18 estimation was that the wattage of more or less small
19 motor is sufficient to deliver the airflow you need.

20 Q Were you recommending the use of a Mabuchi
21 motor in particular as opposed to a motor from a
22 different manufacturer?

23 A That's only a statement belonging to the power
24 you need, not to the special company Mabuchi and not to

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1 this or that motor, maybe only to this motor series.

2 Q Okay. Do you recall what was the wattage for
3 the motor used at that time?

4 A No, I cannot remember.

5 Q Do you recall whether there would have been any
6 documents detailing which motor was used?

7 A If they use the motor inside the air styler
8 because we can look in the documents in the parts list
9 which motor is -- has been inside, but I don't know now.

10 Q Which documents -- when you say a parts list,
11 what are you referring to?

12 A That our normal documents, the company needs to
13 -- drawings and parts list that you know how to assemble
14 a device or new appliance.

15 Q Procurement documents, documents which
16 illustrate what the parts are for a particular device?

17 A Yes. Each part has a part number and a name
18 and so on, and inside the parts list you write down how
19 many of these parts you need and in the combination to
20 other parts and so on.

21 Q You said that's normal practice at Braun?

22 MS. WOLF: Objection.

23 THE WITNESS: Yes. Everywhere I think in the
24 technical company.

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1 MR. SHIMOTA: Q And is that -- I mean what you do
2 in your normal practice when building a device that you
3 have a parts list?

4 A Yes.

5 Q If you could look under point 3 on this memo.
6 In the second sentence it says, the holder for the
7 shaver head must be sufficiently changed so that these
8 free cross cutters fall away at least laterally.

9 Do you see that?

10 A Uh-huh.

11 Q How did the holder for the shaver head in the
12 prototype need to be changed?

13 A As I understand it now that was more or less
14 the same situation as already described here. The air
15 can pass also in this and these areas here and,
16 therefore, if you -- it was a suggestion if you make it
17 smaller then it's good for efficiency.

18 Q I understand. I guess at least, you know,
19 putting aside the last 2 points we haven't discussed,
20 just generally characterizing points 1 through 3, is it
21 the point of this memo to state that basically what
22 you've illustrated in that drawing that the holder
23 should be made a little bit smaller on the sides?

24 MS. WOLF: Objection.

17 (Pages 62 to 65)

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1 THE WITNESS: Smaller on the sides?
 2 MR. SHIMOTA: Q Tighter.
 3 A Tighter belongs to point 3, I think.
 4 Q Okay. Set that aside. Point 3 is basically
 5 making the recommendation that the holder should be
 6 tighter on the sides?
 7 A Yes, that's what I can read here, yeah.
 8 Q Do you know if that was your idea, Mr. Braun's
 9 idea or an idea you two developed jointly?
 10 A Again I would say a common idea, a known
 11 principle.
 12 Q The next sentence it states, the gap blow the
 13 head should only be large enough so that the cleaning
 14 fluid can flow away.
 15 A Yes.
 16 Q How large or how much -- how large -- what was
 17 an appropriate gap below the shaving head?
 18 A I think this sentence belongs to this sketch
 19 here. If -- of course, if you can imagine it's too
 20 large then the air can pass here close to the head and
 21 it can pass here and only the airflow close to the head
 22 gives a contribution for the drying result and,
 23 therefore -- if on the other hand if it's -- what I
 24 tried to remember right now, if it's too small then the

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1 liquid will stay in this small channel here and,
 2 therefore, also you need an optimum size.
 3 Q Did you ever determine what the optimum size
 4 was?
 5 A I think it was part of all these suggestions
 6 that they -- if they want can finally build a testing
 7 device to find this out.
 8 Q Okay. Was the testing device ever built?
 9 A I'm not sure.
 10 Q Do you have any idea who would know the answer
 11 to that question?
 12 A Of course, Mr. Braun should know. One way is
 13 really to build a testing device. Second possible way
 14 is to take this idea and already realize in another more
 15 sophisticated functional model.
 16 Q I understand. In the last sentence under point
 17 3 it says that a seal of a gap would also be helpful.
 18 Explain what you mean by a seal of the gap.
 19 A This belongs to a detail I cannot remember
 20 right now. Maybe if there was a special geometry for
 21 the liquid to flow away. I cannot remember this detail
 22 now.
 23 Q Okay.
 24 THE VIDEOGRAPHER: Counsel, can we change tapes?

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1 MR. SHIMOTA: Yes.
 2 THE VIDEOGRAPHER: Here concludes tape 1. We are
 3 going off the video record at 12:23 p.m.
 4 (Off the record)
 5 THE VIDEOGRAPHER: Good afternoon. We are going
 6 back on the video record at 12:26 p.m. Here begins
 7 tape 2.
 8 MR. SHIMOTA: Q Welcome back. If you look again at
 9 the document we've been discussing. Under point 5 it
 10 states when using one, then it's underlined, motor for
 11 driving the fluid pump in the blower, the additional
 12 cost of electronic and mechanical regulation should be
 13 considered as both systems operate with different
 14 rotational speeds and motor loads and must be inserted
 15 next to each other.
 16 Do you see that?
 17 A Uh-huh.
 18 Q Do you recall why you underlined -- underscored
 19 the word one?
 20 A Because now I cannot tell you why I underlined
 21 this some years ago. But it was the main idea which was
 22 discussed, one motor for both systems.
 23 DR. STUTIUS: I think it's from the German because
 24 it's -- it's also in -- indefinite article. One could

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1 be in German A, and it could also be a single. So if
 2 you want to emphasize a single you would underline one,
 3 A, with an e for that emphasis.
 4 MR. SHIMOTA: Q I understand. Why did you say it
 5 was the main idea or why was it the main idea?
 6 MS. WOLF: Objection.
 7 THE WITNESS: It was the main point of this idea.
 8 If you have technical discussions can we do this like
 9 this, what can happen, if and so on.
 10 MR. SHIMOTA: Q For this point here -- for point 5
 11 do you recall whether that was the idea of yourself,
 12 Mr. Braun or a joint idea?
 13 A I don't think that it was my idea because I
 14 always try to have separate motor for my fan.
 15 Q So for point 5 you -- at least it's your belief
 16 that was Mr. Braun's idea?
 17 A At least not my idea.
 18 Q Okay. If you could look again at point 4, now
 19 that we've taken the time to go through this memo in
 20 detail, I was wondering if you had any better
 21 recollection as to whether the idea in point 4 was your
 22 idea, Mr. Braun's idea or a joint idea?
 23 A Hard to say. Maybe a joint idea, obvious idea.
 24 Q Did you say an obvious idea?

18 (Pages 66 to 69)

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1 A Yes.
 2 THE INTERPRETER: Plausible.
 3 DR. STUTIUS: Come to anybody mind.
 4 MR. SHIMOTA: Q I'll just ask you again the German,
 5 go through this briefly. If you could just tell me
 6 starting at the top, there's listed sketch 1. Can you
 7 tell me what is represented by sketch 1-or what
 8 principle that we discussed that corresponds to?
 9 A Sketch 1 I think shows the position of the
 10 nozzle in relation to the head of the shaver. The
 11 nozzle is --
 12 DR. STUTIUS: The düse.
 13 THE WITNESS: Düse and crossed area you can see
 14 here.
 15 DR. STUTIUS: The hatch.
 16 THE WITNESS: The hatched area.
 17 MR. SHIMOTA: Q So düse is the nozzle?
 18 A The nozzle, yes.
 19 Q And I guess you see the axes there, the -- does
 20 that make sense, the X and Y axis?
 21 A Yes. That's more or less the same sketch from
 22 this side and from the -- not opposite side, but 90
 23 degree turned side.
 24 Q And what point or which of the -- which of the

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1 maybe to this direction, and then it's -- it's helpful
 2 for the airflow to reach also to reach all points of
 3 this geometry.
 4 Q Why was it helpful?
 5 A If the opposite would have been realized like
 6 this and the air comes from here, this part would have
 7 had a good drying and here we call it --
 8 DR. STUTIUS: Dead zone.
 9 THE WITNESS: Dead zone with not so high airflow
 10 here in this region, and the drying result is worse and
 11 if you turn it a little then -- yeah, it was our idea
 12 that we can improve it.
 13 MR. SHIMOTA: Q So the swiveling of the foil or
 14 pivoting of the head, did that improve the drying
 15 process?
 16 A The geometry of the shaver was given and here
 17 was just idea if you move it a little bit towards the
 18 airflow that this can be helpful.
 19 Q Okay. So -- I understand. So did -- let me
 20 see if I can phrase this correctly.
 21 So you came up with the idea -- well, you came
 22 up with the idea because the fact that the shaver
 23 pivoted was a given, correct?
 24 A Yes.

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1 points does sketch 1 correspond with in your list?
 2 A As documented it's basically connected with
 3 point 1.
 4 Q And for sketch 2, can you tell me basically
 5 what is represented by sketch 2?
 6 A Yes, here. Point 3. That basically shows that
 7 it's better to have no free areas around the shaver
 8 head, not to allow the air to pass easily without any
 9 contribution.
 10 Q Well, the area with the little dots, is that
 11 representing the shaver head with stubble in it?
 12 A Yes, not the holes in it.
 13 Q Oh, the holes. Those would be holes in foil?
 14 A Yes, the holes in the foil.
 15 Q This is basically if -- I don't know if you
 16 have your drawings here still. Excuse my reach.
 17 Sketch 2, does that roughly correspond with
 18 what we were discussing here?
 19 A Yes. Here in combination with here.
 20 Q Okay. And for sketch 3, can you explain to me
 21 what is represented by sketch 3?
 22 A The shaver head -- at that time was already
 23 movable and, therefore, we had the idea if the shaver is
 24 fixed in the cleaning center then the head turns to --

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1 Q You didn't compare -- did you compare a
 2 pivoting shaver against a nonpivoting shaver?
 3 A No. As I told the geometry was given and the
 4 system was as it was.
 5 Q Looking at sketch 3 again, does that help you
 6 recall what the seal of the gap meant in your memo?
 7 A No because the seal -- no.
 8 Q Do you have any -- do you have any idea of any
 9 documents which would help you recall what the seal of
 10 the gap would have referred to?
 11 A No, I can't imagine. Maybe models but not the
 12 document.
 13 Q The models of the shavers?
 14 A The combination, yes.
 15 Q Turning to the Exhibit 39 and 40, I guess
 16 turning first to Exhibit 39, ask you if you recognize
 17 this document?
 18 A I typed it in, that's clear.
 19 Q And what is Exhibit 39?
 20 A That's a kind of calculation which is helpful
 21 to decide the precise geometry of such a blower we need
 22 for this purpose.
 23 Q Does this document help you recall whether the
 24 precise blower had been chosen by this time?

19 (Pages 70 to 73)

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1 MS. WOLF: Objection.

2 THE WITNESS: That was prior to this. First you
3 have to decide which type and then you can calculate
4 details on this.

5 MR. SHIMOTA: Q So you would have selected the type
6 of blower prior to March 26, 1995?

7 MS. WOLF: Objection.

8 THE WITNESS: That means I can continue? Surely,
9 yes.

10 MR. SHIMOTA: Q Why do you say sure, yes?

11 A As I mentioned you first have to choose what
12 you need and then you can continue with details.

13 MR. SHIMOTA: Q Okay. Does this document help you
14 recall how much prior to March of 1995 -- how much prior
15 to March of '95 the blower would have been selected?

16 A No.

17 Q Do you know of any documents which would assist
18 you in recalling a date?

19 A No.

20 Q You mentioned earlier that if you had an
21 opportunity to see models that might assist you in your
22 recollection?

23 A Yeah, that could be helpful to remember when we
24 did the change to this special kind of blower.

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1 Q Just in general what calculations are being
2 shown here?

3 A In general this is a connection between the
4 geometry without mentioning all the details now and the
5 speed of the fan, and you can calculate absolute and
6 relative velocities and so on.

7 Q If you just look at Exhibit -- I guess it's 30
8 or did I mark it as 39?

9 MS. WOLF: 40.

10 THE WITNESS: It's 40 here.

11 MR. SHIMOTA: Q Yes. Ask you if you recognize this
12 document.

13 A Yes, it's also from a program I have written.

14 Q Was this a Fortran program?

15 A Yes. It was such an example for such a Fortran
16 program.

17 Q Was this a program that you wrote specifically
18 for your work on the shaver cleaning system?

19 A No, that's -- you can also use it for other
20 systems.

21 Q And in general -- well, would you have
22 submitted this document to any person or was this for
23 your own personal use?

24 A It's definitely for my personal use. I'm not

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1 sure whether I showed this to colleagues.

2 Q Okay. What calculations are occurring in
3 general in this document?

4 A In general this is to find out whether this
5 combination of main diameter RPM needed air volume and
6 needed pressure, give a result and then you can look it
7 up in literature or somewhere else whether you meet kind
8 of optimum with this idea, with this combination.

9 Q I understand. The only thing I have left, Uwe,
10 I was wondering if you could bring the models in which
11 we took pictures of yesterday just so I can show them to
12 Norbert and see if it helps him recall the date. And
13 that's all I have for you and I'll get you on your way
14 home, enjoy your day off. I'd like for him to be able
15 to see the models.

16 THE VIDEOGRAPHER: Would you like this to be
17 recorded on the record?

18 MR. SHIMOTA: We are going to take a very brief
19 break.

20 THE VIDEOGRAPHER: We're going off the video record
21 of tape 2 at 12:41 p.m.

22 (Off the record)

23 THE VIDEOGRAPHER: We are going back on the video
24 record at 12:54 p.m. Here continues tape 2.

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1 MR. SHIMOTA: Q Welcome back.

2 Just for the record I'll note that I have
3 marked Mr. Smetana's hand drawings as Smetana Exhibit 1
4 through Smetana Exhibit 5 just so I don't cross over
5 with Kevin in the other deposition.

6 (Exhibits 1 through 5 marked as requested)

7 Q That being said, Mr. Smetana, there are now on
8 the table several models of the cleaning system. If you
9 could take the time, and I can hand them to you if you'd
10 like, to look at them and see if any of them assist you
11 in determining or at least being able to say which model
12 would have had the special fan which we've discussed
13 earlier.

14 A Sometimes it's easy to see. If we start with
15 this one, this is the small axial blower. I think the
16 dimension is -- should be the 31 mentioned in the -- in
17 my report. Coming from the air styler. I'm not sure
18 whether I've seen this before. I don't think so.

19 What I can tell this was the smallest kind of
20 blower we had available in the company.

21 Q That is -- at least basically the air styler,
22 the 31 millimeter air styler?

23 A Air styler.

24 Q I guess I'll hand you this model.

20 (Pages 74 to 77)

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1 A Think I've seen this in our model shop. Maybe
2 it was this or another one also in combination with the
3 work of Mr. Braun. It's harder to recognize the fan
4 system immediately up close. So from the first look I'm
5 not sure which fan is inside, but it's not what we
6 finally developed because it looks like the last or very
7 last model here.

8 Q I guess my question though -- I just want to
9 see if you can recall either a date or in which model
10 the special fan would have appeared first.

11 I think you told me that would have been prior
12 to March of '95 so I figured these might help.

13 A As far as I can remember, this could belong to
14 the work of Mr. Braun and he was retired in somewhere --

15 Q May of '95.

16 A May of '95, uh-huh, yes. So that's prior to
17 this. I don't think that radial blowing system is
18 inside. To be sure we have to open up, but that's
19 not --

20 MR. SIEVERS: It's not a functional model. It's not
21 a functional model. So maybe it's only a design model.
22 This is from the design department.

23 MR. SHIMOTA: Q Well, sitting here today I guess my
24 question is, do any of these models help you to remember

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1 when prior to March of 1995 the special fan would have
2 first been used in a shaver cleaning system?

3 MS. WOLF: Objection.

4 THE WITNESS: I think it starts together with the
5 fifth model here on the table. Not -- not the very
6 last, the one before. Here -- up here we have the
7 special inlet geometry and also the fan I described, the
8 special position.

9 THE VIDEOGRAPHER: Can someone move that model right
10 there? Yeah. Okay.

11 THE WITNESS: Maybe the other with SDL model could
12 be helpful. No, the other one.

13 For me this seems a little bit newer than this
14 one, and also inside here should be an axial fan. So
15 from these models on the table now this is the only one
16 which shows the fan system we finally integrated.

17 MR. SHIMOTA: Q Okay. Let me ask just to be clear
18 -- well, this model is from much later, much later after
19 1995?

20 A Developed by Höser and his people.

21 Q So I take it these models don't help you
22 remember when prior to March of '95 the special fan
23 above been selected?

24 A It seems so.

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1 MR. SHIMOTA: With that said, the only final
2 question I would -- I would make the ask you look
3 through your miscellaneous notebook for any additional
4 documents you have pertaining to the shaver cleaning
5 system. Otherwise, thanks for your time and no further
6 questions.

7 THE WITNESS: Do you need the answer for this
8 question?

9 MS. WOLF: No.

10 THE WITNESS: Okay.

11 MR. SHIMOTA: You're done. Thank you.

12 THE VIDEOGRAPHER: In conclusion for April 29th,
13 2005. We are going off the video record at 1:02 p.m.
14 Thank you.

15 (Off the record)

16 -----

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1 STATE OF ILLINOIS)

) SS:

2 COUNTY OF COOK)

3

4 The within and foregoing deposition of the
5 aforementioned witness was taken before CAROL CONNOLLY,
6 CSR, CRR and Notary Public, at the place, date and time
7 aforementioned.

8 There were present during the taking of the
9 deposition the previously named counsel.

10 The said witness was first duly sworn and was
11 then examined upon oral interrogatories; the questions
12 and answers were taken down in shorthand by the
13 undersigned, acting as stenographer and Notary Public;
14 and the within and foregoing is a true, accurate and
15 complete record of all of the questions asked of and
16 answers made by the forementioned witness, at the time
17 and place hereinabove referred to.

18 The signature of the witness was not waived,
19 and the deposition was submitted, pursuant to Rule 30
20 (e) and 32 (d) 4 of the Rules of Civil Procedure for the
21 United States District Courts, to the deponent per copy
22 of the attached letter.

23

24

21 (Pages 78 to 81)

Norbert Smetana April 29, 2005

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The undersigned is not interested in the within
case, nor of kin or counsel to any of the parties.
Witness my official signature and seal as
Notary Public in and for Cook County, Illinois on this
_____ day of _____, A.D. 2005.

CAROL CONNOLLY, CSR, CRR
CSR No. 084-003113
Notary Public
230 West Monroe Street
Suite 1500
Chicago, Illinois 60606
Phone: (312) 263-3524

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1 CASE: BRAUN -vs- RAYOVAC
2 DATE TAKEN: April 29, 2005
3 DEPONENT: NORBERT SMETANA

4 PAGE LINE ERRATA SHEET

5 _____ CHANGE: _____
6 _____ REASON: _____
7 _____ CHANGE: _____
8 _____ REASON: _____
9 _____ CHANGE: _____
10 _____ REASON: _____
11 _____ CHANGE: _____
12 _____ REASON: _____
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16 _____ REASON: _____
17 _____ CHANGE: _____
18 _____ REASON: _____
19 _____ CHANGE: _____
20 _____ REASON: _____
21 _____ CHANGE: _____
22 _____ REASON: _____

23 (SIGNED) _____

24 Reporter: Carol Connolly

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1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF MASSACHUSETTS

3 BRAUN GmbH,)
4 Plaintiff,)
5 -vs-) No. 03-CV-12428 (WGY)
6 RAYOVAC CORPORATION,)
7 Defendant.)

8 I hereby certify that I have read the foregoing
9 transcript of my deposition given at the time and place
10 aforesaid, consisting of Pages 1 to 83, inclusive, and I
11 do again subscribe and make oath that the same is a
12 true, correct, and complete transcript of my deposition
13 so given as aforesaid, and includes changes, if any, so
14 made by me.

15
16
17 NORBERT SMETANA

18
19
20
21 SUBSCRIBED AND SWORN TO before me this
22 _____ day of _____, 2005.

23
24 Notary Public

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LEGALINK - CHICAGO
230 West Monroe Street - Suite 1500
Chicago, Illinois 60606
(312) 263-3524 (312) 236-8461
May 9, 2005

MS. LESLEY WOLF
One International Place
Boston, Massachusetts 02110
CASE: BRAUN -vs- RAYOVAC
CASE NO.: 03-CV-12428 (WGY)
DEP OF: NORBERT SMETANA DATE TAKEN: April 29, 2005
Dear Ms. Wolf:

Per your instruction, enclosed is a copy of the
deposition transcript, along with the original signature
page and errata sheet.

Pursuant to the rules of court in this matter, the
transcript is to be read and then signed before a notary
public.

If any corrections/changes are to be made, please TYPE
or PRINT them on the attached errata sheet, giving the
page and line number, desired correction/change and
reason.

Please arrange for accomplishment of same and
transmittal of the signature page and errata sheet back
to our office within 30 days from the date of this
letter.

Upon failure to comply, we shall forward an appropriate
affidavit of noncompliance to all counsel of record.

Sincerely yours,

LegalLink - Chicago

cc: Mr. James Shimota (org)

C.C. Job No. CC126185

22 (Pages 82 to 85)

Norbert Smetana April 29, 2005

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